

Notice of Allowability

Application No.

10/808,155

Examiner

Hai C. Pham

Applicant(s)

CORBETT ET AL.

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 11/21/07.
2. ☒ The allowed claim(s) is/are 1-8,10-13,15,17-29 and 39-50.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: Claims 1-8, 10-13, 15, 17-20 and 42-50 are allowed at least for the reason that the prior art of record does not teach or reasonably suggest the method of electronically adjusting an image to compensate for laser beam process direction position errors in an electrophotographic apparatus comprising reading image data from a first memory location, said image data comprising pixels arranged in a plurality of columns and a plurality of rows, performing pixel shifts on select columns of said image data based upon a bow profile that characterizes process direction position errors of Pels written by a laser beam as it traverses generally in a scan direction to define adjusted image data, wherein said bow profile comprises an instruction for each column of said image data indicating whether that column should be shifted up, down, or not shifted with respect to an adjacent column position, storing said adjusted image data to a second memory location, and deriving a laser signal from said adjusted image data in said second memory location such that said laser signal corresponds to said pixel shifted version of said image data that is pre-warped in said process direction in a manner corresponding to said bow profile, as set forth in the claimed combination.

Claims 21-28 are allowed at least for the reason that the prior art of record does not teach or reasonably suggest the system for electronically adjusting image data to compensate for laser beam process direction position errors in an electrophotographic device comprising a main memory location for storing image data, a first memory location for storing first adjusted image data, a second memory location for storing

second adjusted image data, a first laser beam operable to sweep across a first scan path to write print elements that are associated with a first color image plane of said image data, said first laser beam exhibiting first process direction position errors, a second laser beam operable to sweep across a second scan path to write print elements that are associated with a second color image plane of said image data, said second laser beam exhibiting second process direction position errors, and a bow processor operatively configured to selectively obtain said image data from said main memory location, apply pixels shifts on select columns of said image data and store said adjusted image data, wherein said bow processor applies pixels shifts on columns of the selected image data based upon a first bow profile that characterizes said first process direction position errors of Pels written by said first laser beam when processing image data associated with said first color image plane to define first adjusted image that is pre-warped in the process direction in a manner corresponding to said first bow profile, said first adjusted image data stored in said first memory location, said bow processor applies pixels shifts on columns of the selected image data based upon a second bow profile that characterizes said second process direction position errors of Pels written by said second laser beam when processing image data associated with said second color image plane to define second adjusted image data that is pre-warped in the process direction in a manner corresponding to said second bow profile, said second adjusted image data stored in a second memory location, a first laser signal modulates said first laser beam based upon said first adjusted image

Art Unit: 2861

data, and a second laser signal modulates said second laser beam based upon said second adjusted image data, as set forth in the claimed combination.

Claims 29 and 39-41 are allowed at least for the reason that the prior art of record does not teach or reasonably suggest the method for electronically altering image data to compensate for laser beam process direction position errors in an electrophotographic device comprising storing said image data to be printed in memory, dividing said image data up into a plurality of sections, and for each of said plurality of sections of said image data selectively performing process direction shifts of image data in said section according to a bow profile that characterizes process direction position errors of Pels written by a laser beam as it traverses generally in a scan direction, to define adjusted image data for that section of said image data, storing said adjusted image data in a destination buffer, capturing adjusted image data shifted out of said section in an overflow buffer, and outputting said adjusted image data to a print head, as set forth in the claimed combination.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C. Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

Art Unit: 2861

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



HAI PHAM
PRIMARY EXAMINER

January 25, 2008